Combo Thermometer
Operating Instructions

The Combo thermometer is not only a non-contact infrared thermometer but also a conventional penetration thermometer. Choose the mode required, either the IR mode (infrared) or the TC On (probe). To use the non-contact measurement, simply press the IR button and point the thermometer at the target to display the surface temperature (in the upper display). To use the probe, unfold and insert into the object being measured, wait until the temperature stabilises and the reading will be displayed (in the lower display). Please note: the Combo thermometer will only display either the IR or probe reading.

MAX/MIN

To utilise the Combo's minimum or maximum mode, firstly turn the instrument on by pressing the measurement button, then press the mode button once for minimum or twice for maximum function. The 'MIN' or 'MAX' icon will flash, then press the measurement button to confirm the minimum or maximum mode. The Combo will display the minimum or maximum reading only.

LOCK

The lock mode is particularly useful for continuous monitoring of temperatures. To utilise the Combo's lock mode, firstly turn the instrument on by pressing the measurement button, then press the mode button three times for the lock mode function. The 'LOCK' icon will flash, then press the measurement button to confirm the lock measurement mode. The Combo will continuously display the temperature for up to 60 minutes or until the measurement button is pressed.

°C/°F

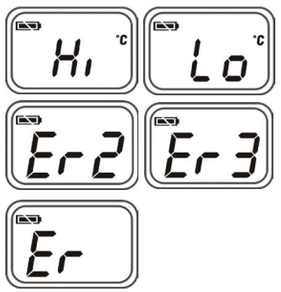
To change the Combo from °C to °F or from °F to °C, firstly turn the instrument on by pressing the measurement button, then press the mode button four times, the °C or °F icon will flash, press the measurement button to change, then press again to confirm the mode.

EMISSIVITY

The Combo infrared thermometer is supplied with a default emissivity of 0.95. The emissivity of the Combo can be changed from 0.1 (10E) to 1 (100E). Changes should only be carried out by experienced personnel. To change the Combo's emissivity, firstly press the IR button, then press the mode button five times for emissivity function. The 95E will flash on the LCD screen, then press the IR button to adjust the emissivity value, press the mode button again to exit the set up screen. For information relating to the emissivity of specific materials, please contact the ETI Sales Office. Note: non-contact infrared thermometers are not recommended for use in measuring the temperature of shiny or polished metals.

LCD ERROR MESSAGES

The Combo incorporates visual diagnostic messages as follows:



Hi or Lo is displayed when the temperature being measured is outside of the range of the instrument, Hi when higher than 220 °C and Lo when lower than -33 °C.

Er2 is displayed when the Combo is exposed to rapid changes in the ambient temperature. Er3 is displayed when the ambient temperature of the Combo exceeds 0 or 50 °C. In both cases you should allow plenty of time (min 30 mins) for the Combo to stabilise to the working/room temperature (0 to 40 °C).

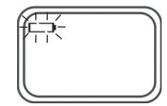
For all other error messages it is necessary to reset the Combo. To reset, turn the instrument off, remove the battery and wait for a minimum of one minute, insert the battery and turn on. If the error message remains please contact the ETI Service Department for further assistance.

BATTERY

The Combo incorporates visual low battery indication as follows:

Battery OK
measurements are possible

Battery Low
battery needs to be replaced, measurements are possible



Battery Exhausted
measurements are not possible

BATTERY REPLACEMENT

When the Low Battery icon indicates the battery is low, it should be replaced immediately with a CR2032 lithium cell (ETI order code: 839-095). The battery is located under the twist cover at the rear of the Combo. Please note: It is important to turn the instrument off before replacing the battery otherwise the Combo may malfunction.

STORAGE & CLEANING

The sensor lens is the most delicate part of the Combo. The lens should be kept clean at all times, care should be taken when cleaning the lens using only a soft cloth or cotton swab with water or medical alcohol, allowing the lens to fully dry before using the Combo, do not submerge any part of the unit. The Combo should be stored at room temperature between 10 to 40 °C.

EMC/RFI

Instrument performance may be affected if operated within a high frequency radio field, such as near a mobile phone, or if subjected to an electrostatic shock.

GUARANTEE

This instrument carries a one-year warranty against defects in either components or workmanship. During this period, products that prove to be defective will, at the discretion of ETI, be either repaired or replaced without charge. This warranty does not apply to probes, where a six-month period is offered. The product warranty does not cover damage caused by fair wear and tear, abnormal storage conditions, incorrect use, accidental misuse, abuse, neglect, misapplication or modification. Full details of liability are available within ETI's Terms & Conditions of Sale at www.etiltd.com/terms. In line with our policy of continuous development, we reserve the right to amend our product specification without prior notice.

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